Lightroom noise reduction: step by step

Now let's take a look at how you should approach noise reduction in Lightroom.

Step 1: Open the Detail panel

First, to remove noise from a photo, you'll need to open the Detail panel in the Develop module. You'll find sliders for luminance noise and for color noise:

For RAW images, Lightroom automatically applies color noise reduction during the import process. By default, the Color slider will be set to 25 (with Detail and Smoothness set to 50).
The Luminance slider will be set to 0, with Detail set to 50 and Contrast set to 0 (see the screenshot above).

Step 2: Identify the noise

Now comes the fun part. You'll need to carefully observe your image – I recommend zooming in to 100 percent or more – with the aim of determining the type of noise present. In some cases, you may have both noise types; in other cases, only one noise type will be a problem.
(Quick tip: If you're not sure what type of noise is in an image, boost both the Color and Luminance sliders to their maximum values and see what happens. If you have a lot

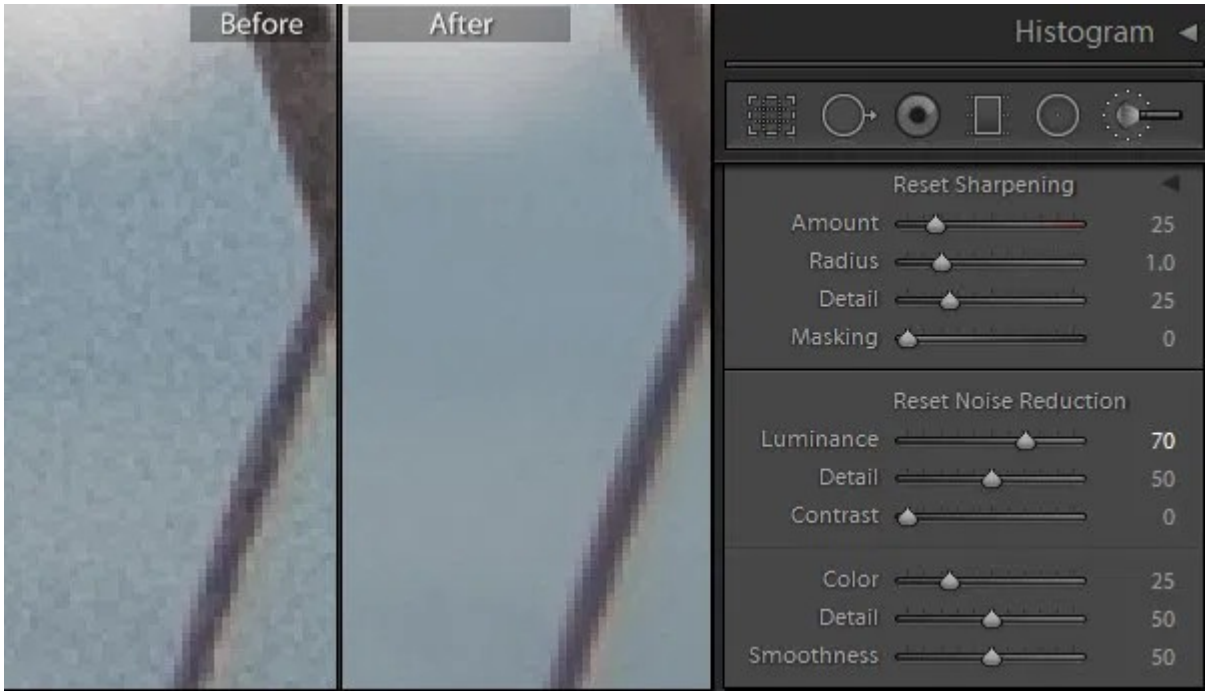
of color noise, adjusting the Color slider should make a big difference, and if you have a lot of luminance noise, the Luminance slider will have the greater effect.)

Step 3: Increase the corresponding sliders

Once you know the type of noise you are trying to remove, drag the corresponding slider to the right. Aim to reduce the noise to an acceptable level, but avoid going too far. After all, the more noise reduction you use, the more detail you lose.

Step 4: Fine-tune additional sliders

Once you've adjusted the Luminance slider, adjust the Detail and Contrast sliders just below it. The Detail slider controls, well, detail – the higher the value, the more detail that'll remain in the image. Of course, the more you boost the Detail slider, the less you'll remove the actual noise. (And if you use a low Detail value, you will get a smoother result but with less detail).

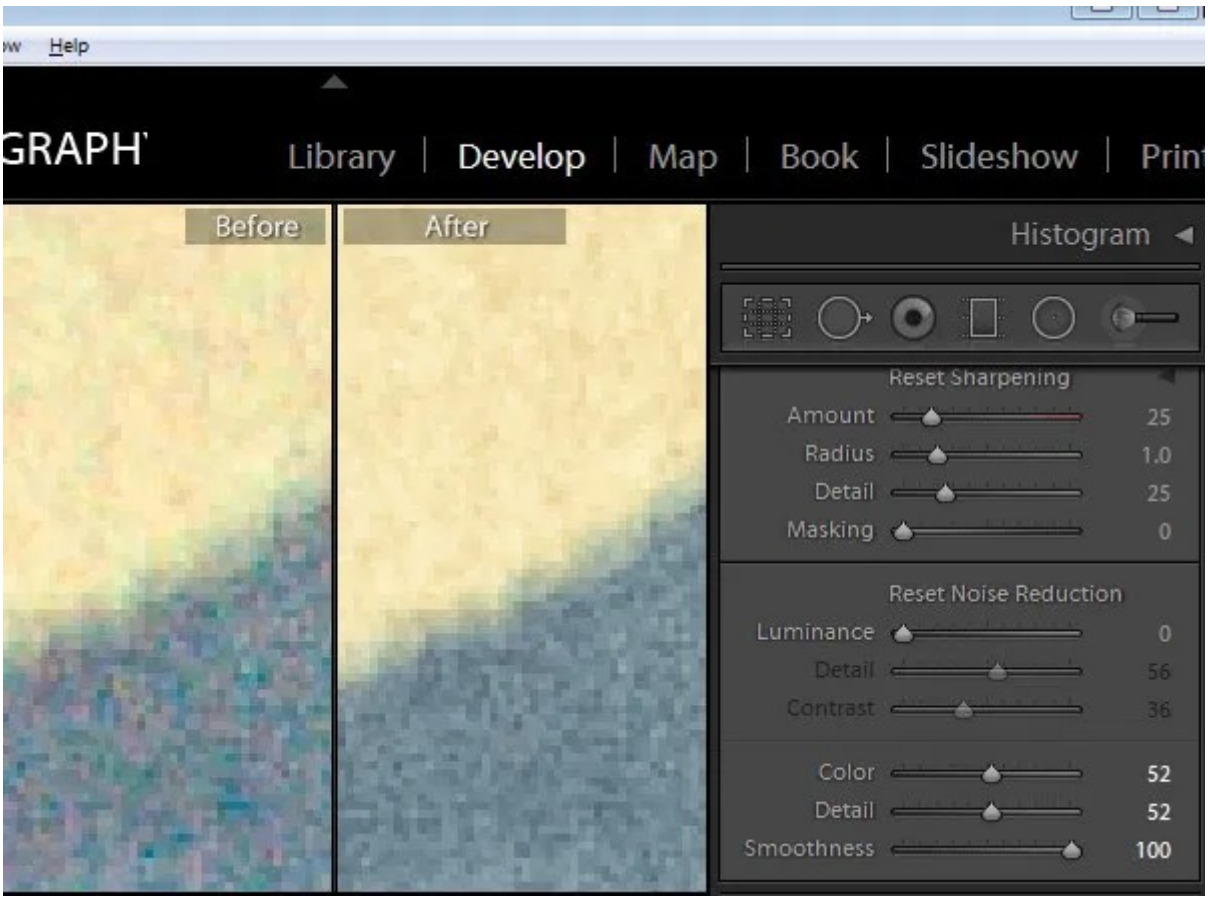


The Contrast slider controls luminance contrast. The more you boost this slider, the more contrast you'll get in the final image. You'll also end up with more noise and mottling. Of course, lower Contrast values will give you a smoother, lower-noise result, but at the expense of reducing contrast.

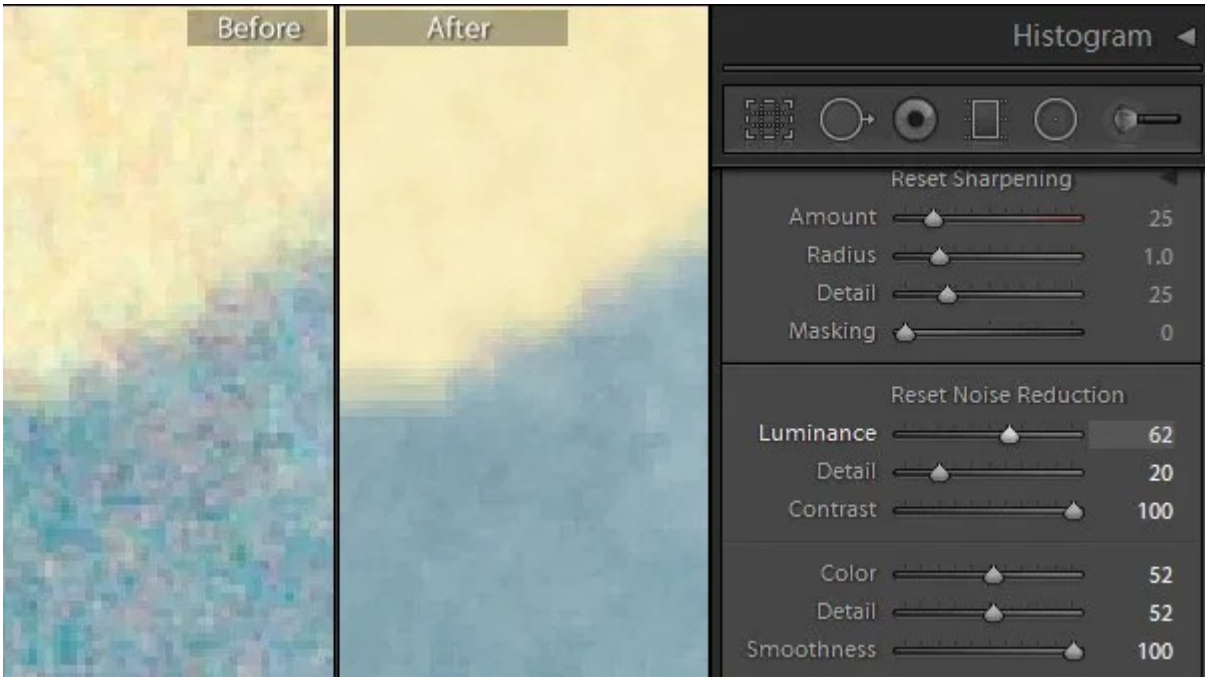
For color noise, you also get two extra sliders: Detail and Smoothness.

The Detail slider controls the amount of detail left alone by Lightroom's color noise reduction; boosting the slider will protect detail. Lower Detail values will give you some added smoothing of the color noise, but you may notice that colors bleed into each other. (Adjust the Smoothness slider to help reduce low-frequency color mottling artifacts.)

In this image, removing color noise leaves some luminance noise:



Then, once the color noise is removed, the Luminance slider can remove the remaining luminance noise:

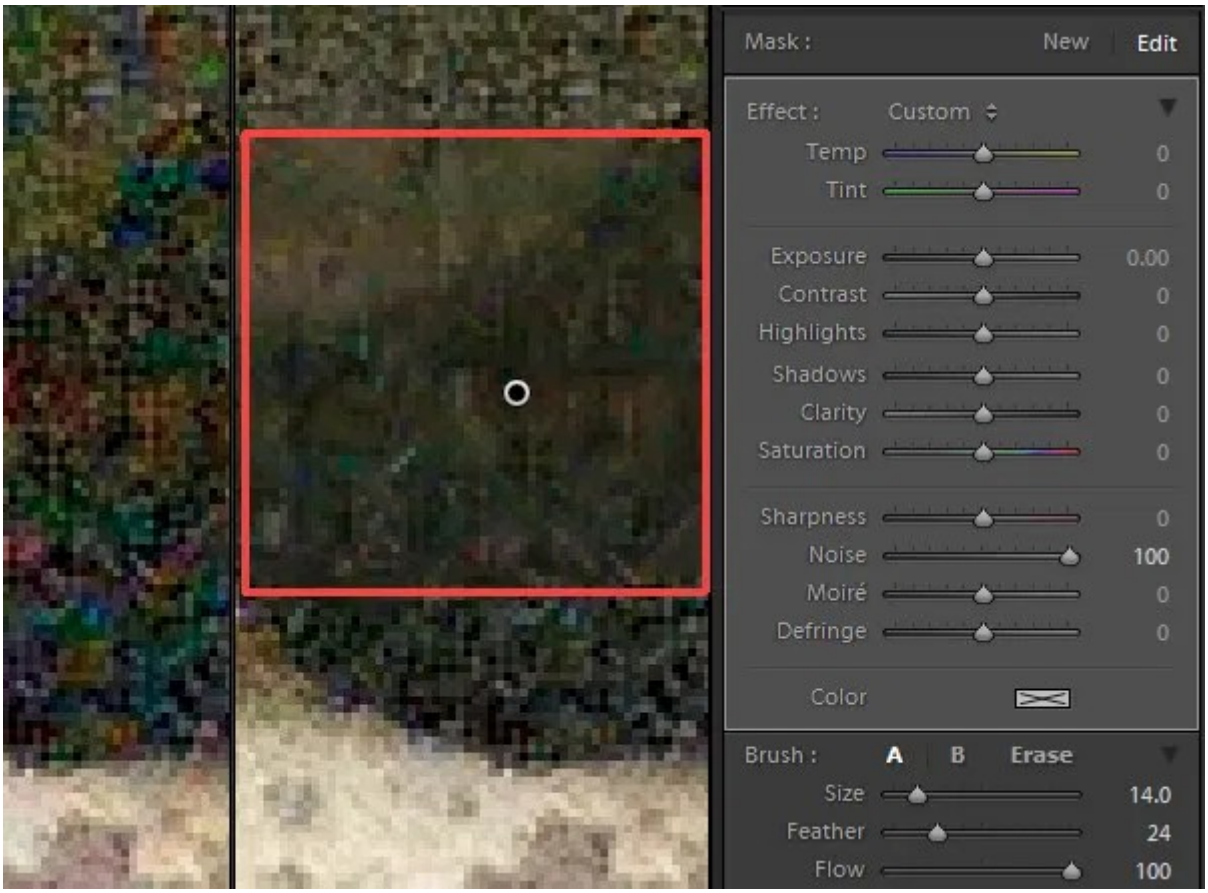


When removing noise from an image, it helps to zoom to 100 percent. That way, you can see what is happening on a pixel level. (Though you also want to look at your image zoomed out! I recommend periodically zooming in and out to check the result.)

Local noise reduction

What if you want to target your noise reduction to a specific part of your image? Is that an option in Lightroom?

Yes, you can do this – sort of. You see, Lightroom does offer a Noise slider as part of its targeted adjustment panel. So you can apply noise reduction via the Adjustment Brush, the Radial Filter, or the Graduated Filter, and you'll be able to limit noise reduction to the areas you want to affect, leaving the rest of the image unchanged.



But there is a major downside to this feature:

It only removes luminance noise (not color noise), and there's no additional Detail or Contrast slider to help you fine-tune the results.

Still, for images suffering from luminance noise, it can be useful, so I do recommend you try it out.

Select the area you want to denoise, then boost the Noise slider. The selected area of your image will instantly become less noisy.

By the way, if you sharpen your images after removing noise, make sure to use a light touch – increasing sharpness can increase noise. I'd recommend using the Masking slider in the Detail panel to keep the sharpening applied only to areas with lots of detail.

How to do noise reduction in Lightroom: conclusion
Now that you've finished this article, you can confidently reduce noise in Lightroom – for clean, beautiful files.

So grab some noisy images, then test out your new noise reduction skills. And don't be afraid to experiment with different slider strengths; if you don't like a change, you can always adjust it right back.

Now over to you:

How do you do noise reduction to your images? Do you struggle? Share your thoughts in the comments below!